

# ABSTRACT

The present invention is directed toward a radio, and method for receiving radio frequency signals. The radio comprises an input signal at a first intermediate frequency, an intermediate sampling architecture, a quantizer and a baseband converter. The intermediate frequency sampling architecture comprises receiving the input signal, passing the first intermediate frequency signal through a first filter characterized by steep selectivity and narrow bandpass, converting the filtered signal to a second intermediate frequency and passing the second intermediate frequency signal through a second filter having a bandpass characteristic, but without the steep selectivity characterizing the first filter. The radio further comprises a third filter following the baseband conversion which filters out adjacent channel harmonics to obtain a wanted data signal.